

Standard Operating Procedures for Latent Print Processing with Ash Gray Powder

1 Scope

Ash Gray Powder is used by latent print personnel to develop latent prints on adhesive surfaces. |

2 Equipment/Materials/Reagents

Beakers or graduated cylinders

Camel hair brush or other similar small brush

Petri dish or other container

Spatula

Ash Gray Powder

Liqui-Nox[®]

Water

Photo-Flo 200 Solution

Photo-Flo 600 Solution

3 Standards and Controls

Not applicable.

4 Sampling or Sample Selection

Not applicable.

5 Procedures

5.1 Solution Preparation (Photo-Flo)

- a) Ash Gray Powder working solution
 - Place Ash Gray Powder in petri dish or other suitable container.
 - Add Photo-Flo 200 Solution or Photo-Flo 600 Solution and stir using a brush until the consistency of thin paint is achieved.

5.2 Solution Preparation (Liqui-Nox[®])

- a) Liqui-Nox[®] stock solution
 - Combine Liqui-Nox[®] and water in equal amounts and mix.
- b) Ash Gray Powder working solution
 - Place Ash Gray Powder in petri dish or other suitable container.
 - Add Liqui-Nox[®] stock solution and stir using a brush until a consistency between paint and thin paint is achieved (Note: solution will be frothy).

5.3 Application

- a) Paint Ash Gray Powder working solution onto adhesive surface with a brush.
- b) Let sit for a minimum of 30 seconds.
- c) Rinse with a slow stream of water.
- d) Allow to dry.
- e) For digital capture and photography, see FBI Latent Print Units Processing Manual Preamble.

5.4 Storage

- a) Liqui-Nox[®] stock solution may be stored in any type of laboratory accepted receptacle.
- b) Ash Gray Powder working solution is not stored. It is prepared as needed.

5.5 Shelf Life

- a) Liqui-Nox[®] stock solution has an indefinite shelf life provided the reagent checks are satisfactory.
- b) Ash Gray Powder working solution does not have a shelf life. It is prepared as needed.

5.6 Reagent Checks

See FBI Latent Print Units Processing Manual, Preamble.

6 Calculations

Not applicable.

7 Measurement Uncertainty

Not applicable.

8 Limitations

Not applicable.

9 Safety

See FBI Laboratory Safety Manual for appropriate information.

10 References

Bratton, R. and Gregus, J. "Development of a Black Powder Method to Process Adhesive Tapes". *Fingerprint Whorld*. 23(87):21.

FBI Laboratory Safety Manual, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Lo, I. K. L. "A Review on Detection of Latent Prints on Self-Adhesive Tapes". *Fingerprint Whorld*. 19(74):89.

Trozzi, T. A., Schwartz, R. L., and Hollars, M. L. *Processing Guide for Developing Latent Prints*, FBI Laboratory, Washington DC, 2001.

FBI Latent Print Units Processing Manual, Preamble, Federal Bureau of Investigation, Laboratory Division. Latest Revision.

Rev. #	Issue Date	History
0	01/13/14	Original document issued. Derived from Discontinued Latent Print Operations Manual, Standard Operating Procedures for Processes Used to Develop Latent Prints.
1	10/02/17	Specific section numbers referenced in Preamble removed throughout document. Section 1, latent print personnel added. Section 4 removed and remaining renumbered. Titles for new Section 4 and Section 7 modified. Section 9, generalized. Updated for Biometrics Analysis Unit. References updated.

Approval

Redacted - Signatures on File